

April 12, 2005
Attorney Docket No.: De 000050
Serial No.: 09/817,457
Filed: March 26, 2001

CLAIM LISTING

A listing of the entire set of pending claims 1-5, where claim 5 is newly presented, is submitted herewith per 37 CFR §1.121.

1. (Currently Amended) A wireless network comprising a plurality of terminals and an assigned central station, which network, after receiving requests for the wireless transmission of packets between a transmitting and a receiving terminals, during a time multiplex frame, ~~assigns is provided for assigning~~ time slots ~~within~~ of a following time multiplex frame for the wireless transmission of ~~the~~ packets from ~~the~~ transmitting ~~terminal~~ to ~~the~~ receiving terminal, including steps of:
- ~~receiving characterized in that after reception of all the requests for wireless transmission by the assigned central station; is provided for~~
- determining, from a set of all transmitting terminals within the network, a first subset of all the set comprising those transmitting terminals that intend to transmit packets to a plurality of receiving terminals, and determining a second subset, which includes containing the remaining terminals rest of the set of transmitting terminals, which are not contained in the first subset,
 - determining an the order in which the transmitting terminals of the first subset transmit based on in accordance with the decreasing number of receiving terminals assigned to each transmitting terminal therein,
 - subdividing the receiving terminals assigned to each transmitting terminal of the first subset assigned to a transmitting terminal into a first group such that the first group includes which contains all the receiving terminals already assigned to used as transmitting terminals, and into a second group of receiving terminals which includes which contains all the other receiving terminals, and
 - determining the receiving order in the two groups of receiving terminals in accordance with the transmission order of the corresponding as a transmitting terminal, wherein and
 - first selecting the receiving terminal of the second group receives transmitted packets first in time.

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2. (Currently Amended) A wireless network as set forth in claim 1, ~~wherein characterized in that the central station determines~~ is provided for determining the transmission order of the transmitting terminals of the second subset by first selecting in such a way that first all of the transmitting terminals are selected that have not previously been either a transmitting or a receiving terminal, and then selecting all of the transmitting terminals are selected that have not previously been a receiving terminal, and in that the transmitting terminals of the second subset transmit are provided for transmitting either before or after the transmitting terminals of the first subset.
3. (Currently Amended) A wireless network as set forth in claim 1, ~~wherein characterized in that the central station divides~~ is provided for dividing the set of transmitting terminals of the second subset into a transmission order of the first subset in such a way that a transmitting terminal is not defined as a transmitting terminal if it was a receiving terminal in the preceding time slot, or would be a receiving terminal in the and following time slot and that a receiving terminal is not defined as a transmitting terminal in the preceding and the following time slot.
4. (Currently Amended) A central station included within ~~in a~~ wireless network comprising a plurality of wireless terminals, which central station, after receiving requests for the wireless transmission of packets between a transmitting and a receiving terminals, during a time multiplex frame, assigns ~~is provided for assigning time slots in an order for packet transmission of a following time multiplex frame, wherein after reception of all requests, for the wireless transmission of packets by the central station, from a transmitting to a receiving terminal, characterized in that after reception of all the requests the central station implements the following steps: is provided for~~
- determining a first subset of a set comprising all of the transmitting terminals in the wireless network, which terminals in said first subset each that intend to transmit packets to a plurality of receiving terminals,

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~~_____~~ determining a ~~and a~~ second subset of transmitting terminals containing a remainder of transmitting terminals of the set not included in the first subset ~~the rest of the transmitting terminals,~~

~~_____~~ determining ~~an~~ the order in which the transmitting terminals of the first subset transmit, ~~said order determined~~ in accordance with the decreasing number of receiving terminals assigned to a particular transmitting terminal,

~~_____~~ subdividing the receiving terminals assigned to each transmitting terminal of the first subset assigned to a transmitting terminal into a first group containing ~~which contains~~ all the receiving terminals already used as transmitting terminals, and into a second group which contains all ~~remaining the other~~ receiving terminals, ~~and~~

~~_____~~ determining the receiving order in the ~~first group and the second group two groups~~ in accordance with the transmission order as a transmitting terminal, ~~wherein and~~

~~_____~~ ~~first selecting the receiving terminal of the second group is selected for receiving packets first in time.~~

5. (New) A method for time slot sorting in a wireless network, comprising the steps of:

determining a first subset from a set of all transmitting terminals comprising the network, wherein the determining delegates to the first subset those transmitting terminal that intends to transmit packets to a plurality of receiving terminals,

determining a second subset from the set of terminals, wherein the determining delegates all transmitting terminals remaining in the set which have not been delegated to the first subset,

defining an order in which the transmitting terminals of the first subset transmit in dependence upon the decreasing number of receiving terminals assigned to each transmitting terminal therein,

subdividing the receiving terminals assigned to each transmitting terminal of the first subset into a first group, which first group contains all the receiving terminals designated as transmitting terminals,

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subdividing the receiving terminals not assigned in the first subset to a second group; and

defining a receiving order in the first group and second group in accordance with the transmission order of each respective transmitting terminal, wherein the receiving terminals of the second group receive data first in time.